IN THE CLAIMS

Please amend the claims as follows:

1. (Cancelled).

2. (Currently Amended) ~~A method as claimed in claim 1~~A method for setting an optimum value of a write parameter for use in an optical recording apparatus for writing information on an optical recording medium by means of a radiation beam, the method comprising the steps of:

writing a series of test patterns on the recording medium, each pattern being written with a different value of a write power level (P) of the radiation beam;

reading the patterns so as to form corresponding read signal portions; and

deriving a value of a read parameter from each read signal portion,

characterized in that the method further comprises the steps of:

curve-fitting a function defining a relation between the read parameter and the write power level (P) to the values of the read parameter and of the write power level (P); and

setting an optimum value of the write parameter in dependence on a property of the curve-fitted function,

characterized in that in the ~~fourth~~ curve-fitting step ~~(44)~~, a function represented by a substantially straight line ~~(22)~~ is

curve-fitted to the values of the read parameter and of the write power level (P).

3. (Currently Amended) ~~A~~ The method as claimed in claim ~~1~~2, wherein the read parameter is a modulation (M) of the amplitude of a read signal derived from information recorded on the recording medium.

4. (Currently Amended) ~~A method as claimed in claim 3~~A method for setting an optimum value of a write parameter for use in an optical recording apparatus for writing information on an optical recording medium by means of a radiation beam, the method comprising the steps of:

writing a series of test patterns on the recording medium, each pattern being written with a different value of a write power level (P) of the radiation beam;

reading the patterns so as to form corresponding read signal portions;

deriving a value of a read parameter from each read signal portion;

curve-fitting a function defining a relation between the read parameter and the write power level (P) to the values of the read parameter and of the write power level (P); and

setting an optimum value of the write parameter in dependence on a property of the curve-fitted function,

characterized in that the read parameter is a modulation (M) of the amplitude of a read signal derived from information recorded on the recording medium,

in that the curve-fitted function ~~(22)~~ is of the form:

$$P \cdot M = \alpha \cdot (P-\beta),$$

wherein α and β have values resulting from the curve-fitting,

and in that the optimum value of the write parameter is set to be substantially equal to the value of β.

5. (Currently Amended) ~~A~~ The method as claimed in claim 2, characterized in that the curve-fitting of the straight line in the ~~fourth~~ curve-fitting step is carried out in a predetermined fit range ~~(28)~~ of write power levels.

6. (Currently Amended) ~~A~~ The method as claimed in claim 5, characterized in that the predetermined fit range of write power levels is ~~in~~ between P_{ind} times ω_1 and P_{ind} times ω_2, where P_{ind} is a value read from an area on the recording medium comprising control information indicative of the recording process, and where ω_1 and ω_2 are predetermined values.

7. (Currently Amended) ~~A~~ The method as claimed in claim 5, characterized in that the method further comprises a step of:

_____ curve-fitting a provisional straight line,

_____ and in that the predetermined fit range of write power levels is ~~in~~ between P_{fit} times ω_1 and P_{fit} times ω_2, where P_{fit} is a value derived from the provisional curve-fitted straight line, and where ω_1 and ω_2 are predetermined values.

8. (Currently Amended) ~~A~~ The method as claimed in claim 6, characterized in that ω_1 has a value substantially equal to 0.85 and ω_2 has a value substantially equal to 1.15.

9. (Currently Amended) ~~A~~ The method as claimed in claim 5, characterized in that the method ~~also~~ further comprises a step of:

_____ curve-fitting at least a second straight line in at least a second predetermined fit range of write power levels,

_____ and in that in the ~~fifth~~ optimum value setting step, the optimum value of the write parameter is set in dependence on a property of each of the curve-fitted straight lines.

10. (Currently Amended) A method for setting an optimum value (P_{opt}) of a write power level (P), of a radiation beam, ~~which~~ said method ~~is~~ being intended for use in an optical recording apparatus for writing information on an optical recording medium (1) by the

radiation beam (5) having the write power level (P), using a method as claimed in any one of the claims 4 to 9 for setting an optimum value of a write parameter, characterized in that the optimum value (P_{opt}) of the write power level (P) is set to be equal to the optimum value of the write parameter times a multiplication constant (κ).

11. (Currently Amended) ~~A~~ The method as claimed in claim 10, characterized in that the multiplication constant (κ) is read from an area ~~(32)~~ on the recording medium containing control information indicative of a recording process whereby information can be recorded on said recording medium.

12. (Cancelled).

13. (Currently Amended) ~~An apparatus as claimed in claim 12~~An optical recording apparatus for recording information on an optical recording medium, said optical recording apparatus comprising:

a radiation source for emitting a radiation beam having a controllable value of a write power level (P) for recording information on the recording medium;

a control unit for recording a series of test patterns, each pattern being recorded with a different value of the write power level;

a read unit for reading the patterns and for forming corresponding read signal portions; and

first means for deriving a value of a read parameter from each read signal portion,

characterized in that the optical recording apparatus further comprises:

second means for curve-fitting a function defining a relation between the read parameter and the write power level (P) to the values of the read parameter and of the write power level (P); and

third means for setting an optimum value of a write parameter in dependence on a property of the curve-fitted function, characterized in that the second means ~~(101) are arranged for curve-fitting~~curve-fits a function represented by a substantially straight line ~~(22)~~ to the values of the read parameter and of the write power level (P).

14. (Currently Amended) ~~An~~ The optical recording apparatus as claimed in claim 13, characterized in that the read parameter derived by the first means ~~(10)~~ is a modulation (M) of the amplitude of a read signal derived from information recorded on the recording medium, and in that the curve-fitted function ~~(22)~~ represented by a substantially straight line is of the form $P \cdot M = \alpha \cdot (P-\beta)$,

wherein α and β have values resulting from the curve-fitting.

15. (Currently Amended) ~~An~~ The optical recording apparatus as claimed in claim 14, characterized in that the third means ~~(102) are arranged for setting~~sets the optimum value of the write parameter so as to be substantially equal to the value of β.

16. (Currently Amended) ~~An~~ The optical recording apparatus as claimed in claim 13, characterized in that the second means ~~(101)~~ for curve-fitting a function ~~are arranged for setting~~sets a predetermined fit range ~~(28)~~ of power levels.

17. (Currently Amended) ~~An~~ The optical recording apparatus as claimed in claim 16, wherein~~,~~ the read unit ~~(90) is operative to read~~reads a value (P_{ind}) indicative of the fit range from an area on the recording medium comprising control information indicative of the recording process, characterized in that the second means ~~(101) are arranged for setting~~sets the predetermined fit range of power levels between P_{ind} times ω_1 and P_{ind} times ω_2,
where ω_1 and ω_2 are predetermined values.

18. (Currently Amended) ~~An~~ The optical recording apparatus as claimed in claim 16, characterized in that the optical recording apparatus further comprises fourth means for curve-fitting a

provisional straight line to the values of the read parameter and of the write power level (P), and fifth means for setting a value P_{fit} in dependence on a property of the curve-fitted provisional straight line, and in that the second means ~~(101) are arranged for setting~~sets the predetermined fit range of power levels between P_{fit} times ω_1 and P_{fit} times ω_2,

where ω_1 and ω_2 are predetermined values.

19. (Currently Amended) ~~An~~ The optical recording apparatus as claimed in claim 16, characterized in that the optical recording apparatus further comprises fourth means for curve-fitting a second straight line in a second predetermined fit range of power levels, and in that the third means ~~(102) are arranged for setting~~sets an optimum value of the write parameter in dependence on a property of each of the curve-fitted straight lines.

20. (Currently Amended) ~~An~~ The optical recording apparatus as claimed in claim 14, characterized in that the optical recording apparatus further comprises setting means for setting an optimum value (P_{opt}) of the write power level (P) in dependence on the optimum value of the write parameter.

21. (Currently Amended) ~~An~~ The optical recording apparatus as claimed in claim 20, wherein the read unit ~~(90) is operative to~~

~~read~~reads a value of a multiplication constant (κ) from an area ~~(32)~~ on the recording medium containing control information indicative of a recording process whereby information can be recorded on said recording medium, characterized in that the setting means ~~are arranged for setting~~sets an optimum value (P_{opt}) of the write power level (P) by multiplying the optimum value of a write parameter by the multiplication constant (κ).

22. (Currently Amended) An optical recording medium ~~(1)~~ for ~~recording~~ having information recorded thereon by irradiating the optical recording medium ~~by means of~~with a radiation beam ~~(5)~~, the recording medium comprising an area ~~(32)~~ containing control information indicative of a recording process whereby information can be recorded on said recording medium, the control information comprising values of recording parameters for the recording process,
characterized in that the control information comprises a value of a multiplication constant (κ) for use in the method as claimed in claim 5.

23. (Currently Amended) An optical recording medium ~~(1)~~ for ~~recording~~ having information recorded thereon by irradiating the optical recording medium ~~by means of~~with a radiation beam ~~(5)~~, the recording medium comprising an area ~~(32)~~ containing control

information indicative of a recording process whereby information can be recorded on said recording medium, the control information comprising values of recording parameters for the recording process,

characterized in that the control information comprises a value indicative of the fit range (P_{ind}) for use in the method as claimed in claim 6.